

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas Canty (Reg. No. 44,586) on 5/2/08.

The application has been amended as follows:

**REPLACE THE PRELIMINARY AMENDMENT TO THE SPECIFICATION FILED
ON 9/28/04 WITH THE FOLLOWING:**

Before paragraph [0002], please add the following heading:
--BACKGROUND--

Before paragraph [0009], please add the following heading:
--SUMMARY OF THE INVENTION--

Please replace paragraph [0009] with the following amended paragraph:
[0009] The present invention is underlied by the problem to specify An object of the present invention is to provide a method and an apparatus of the initially said type which enable touchlessly scanning of uneven surfaces, in particular of a relief made up of dermal ridges, and creating an image of the surfaces true to original with high contrast.

Please replace paragraph [0010] with the following amended paragraph:

[0010] According to the The present invention, the problem is solved by provides a method comprising the attributes given in claim 1 and by an apparatus comprising the attributes given in claim 11 for recognition of biometric data, in particular for the recognition of characteristics of fingers and of faces of persons, comprising: illuminating at least one of stripes and a grid on the uneven surface using at least one light source; detecting, without a touching contact, light reflected from the uneven surface at a plurality of discrete locations so as to create a partial image of the uneven surface at each of the plurality of discrete locations; selectively analyzing each of the partial images; and combining at least portions of the partial images into an overall image of the uneven surface. The present invention also provides an arrangement for a touchless detection of data of an uneven surface of an object, comprising: an imaging optical system including an electronic camera oriented perpendicular to the uneven surface; a plurality of line-shaped light sources for illuminating the uneven surface disposed in row on each side of the electronic camera; an analyzing unit for electronic image processing including an electronic control unit couple to the electronic camera and configured to assign a partial image corresponding to each of the plurality of light sources and to process the partial images into an overall image.

Please replace paragraph [0011] with the following amended paragraph:

[0011] Advantageous embodiments are given in the respective dependent claims described in the specification and in the claims.

Before paragraph [0030], please add the following heading:

--BRIEF DESCRIPTION OF THE DRAWINGS--.

Before paragraph [0035], please add the following heading:

--DETAILED DESCRIPTION--.

Please delete paragraph [0042] including the entire list of reference numbers.

Please delete paragraph [0043].

In the Abstract

Please replace the following amended Abstract:

ABSTRACT

1. Method and arrangement for touchless detection of data of uneven surfaces

2.1 The present invention is underlied by the problem to specify a method and an apparatus of the initially said type which enable touchlessly scanning of uneven surfaces, in particular of a relief made up of dermal ridges, and creating an image of the surfaces true to original with high contrast.

2.2 According to the present invention, the problem is solved by scanning the surface without a touching contact to optically effective surfaces by illuminating them in a strip-shaped manner and, by using light reflected at discrete locations, creating partial images of the object, which are selectively analyzed and composed to an overall image.

2.3 The present invention relates to a method and an arrangement for detection of data of uneven surfaces, in particular for acquisition of biometric data at faces and fingers, using a light source for illumination of the uneven surface, an imaging optical system and an analyzing facility for electronic image processing.

A method for detecting data of an uneven surface of an object includes the following steps: illuminating at least one of stripes and a grid on the uneven surface using at least one light source; detecting, without a touching contact, light reflected from the uneven surface at a plurality of discrete locations so as to create a partial image of the uneven surface at each of the plurality of discrete locations; selectively analyzing each of the partial images; and combining at least portions of the partial images into an overall image of the uneven surface.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON W. CARTER whose telephone number is (571)272-7445. The examiner can normally be reached on 8am - 4:30 am (Mon. - Fri.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron W Carter/
Primary Examiner, Art Unit 2624